

TECHNICAL REVIEW DOCUMENT
for
RENEWAL of OPERATING PERMIT 99OPEP218

Waste Management of Colorado, Inc.
Midway Landfill

El Paso County
Source ID 0410325

Prepared by Matthew S. Burgett
September – December 2006

I. Purpose:

This document will establish the basis for decisions made regarding the applicable requirements, emission factors, monitoring plan and compliance status of emission units covered by the renewed operating permit proposed for this site. The original Operating Permit was issued April 1, 2001, and expired on April 1, 2006. This document is designed for reference during the review of the proposed permit by the EPA, the public, and other interested parties. The conclusions made in this report are based on information provided in the renewal application submitted December 20, 2004. Please note that copies of the Technical Review Document for the original permit and any Technical Review Documents associated with subsequent modifications of the original Operating Permit may be found in the Division files as well as on the Division website at <http://www.cdphe.state.co.us/ap/Titlev.html>.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised Construction Permit.

II. Description of Source

This source is a municipal solid waste disposal facility accepting non-hazardous waste. Decomposing waste encapsulated within the landfill produces a gas that is primarily composed of methane and carbon dioxide. Emissions of non-methane organic compounds (NMOC), which include, Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP), also result from the decomposition of solid

waste placed in the landfill. This source will also conduct a composting operation under the name "Midway Organic Recycling Facility". Fugitive particulate emissions are emitted from the following activities: material transfer to and from soil storage piles, disturbed areas, wind erosion of soil storage piles, waste dumping, material transfer of composting feedstocks, bulking agents, and processed compost, and vehicle traffic on unpaved roads.

The facility is located on Rancho Colorado Boulevard in Fountain. The area in which the plant operates is designated as attainment for all criteria pollutants. There are no affected states within 50 miles of the facility. There are no Federal Class I designated areas within 100 kilometers of the plant.

Based on the information provided in the renewal application, the following changes have been requested:

- A slight increase in the CO emission limit.
- The emission limits have been revised based on the APEN dated December 17, 2004 (subsequently revised with APEN dated 11/27/2006).
- Amended design capacity report for NSPS WWW.
- The source has updated the insignificant activity list.
- Addition of the requirement to comply with Regulation No. 15.
- Addition of composting process.

The summary of emissions that was presented in the Technical Review Document (TRD) for the original permit issuance has been modified to reflect the most recent emission factors and emission estimates (based on historic waste acceptance rates).

Facility-wide emissions are outlined below:

Pollutant	Potential-to-Emit (tons/yr)	Actual Emissions (tons/yr)
Fugitive PM ₁₀	118.78	41.78
Fugitive PM	423.23	148.05
CO	9.0	1.7
VOC	50.0	4.2

The potential-to-emit VOC emissions are calculated from EPA's Landfill Gas Emissions Model (LandGEM). This emission rate is based on the landfill's maximum design capacity. The actual emissions found in the table above are the emissions reported on the most recently submitted APEN.

Compliance Assurance Monitoring (CAM) Applicability

The landfill does not utilize any control equipment to meet the limits of this permit. CAM does not apply.

III. Discussion of Modifications Made

Source Requested Modifications

Carbon Monoxide (CO) emission limits have increased slightly from the last permit. The previous limit of 7.2 ton/yr has been increased to 9.0 ton/yr. This is due to the increase in design capacity of the landfill. CO emission potential will be greatest near the projected closure date of 2080.

The Division has updated the emission limits based on the APEN dated November 27, 2006. The VOC emission rates are based on the LandGEM EPA program, which is commonly used to estimate landfill emissions. The VOC emission limit remains at 50 ton/yr as requested in the Title V renewal application.

Waste Management submitted a revised design capacity report for the landfill to increase the maximum capacity to 25,420,577 Mg. This will increase the potential emissions closer to the landfill closure date, but will have no immediate impact on emissions. The revised design capacity has been submitted as required in NSPS WWW.

The insignificant activity list has been updated.

Waste Management requested permit conditions which will require compliance with Regulation No. 15 and allow them to service motor vehicle air conditioners and remove refrigerant from small appliances prior to disposal. The reference to this regulation can be found in Condition 18 of Section IV (General Permit Conditions). No additional permit conditions are necessary.

The renewal permit requested approval to operate a liquid waste solidification process. This process would increase fugitive dust emissions, and possibly VOC emissions. This process is considered a separate source of emissions from the already permitted landfill operations. The Division had a phone conversation with Stacy Anderson of Waste Management on 8/9/2006 to discuss this operation. Stacy informed the Division that the Midway Landfill would not be conducting the solidification operations requested in the renewal application and the Division can ignore the request. This was also restated in the November 27, 2006 letter from Stacy Anderson.

Waste Management is requesting approval to operate a composting operation at the Midway Landfill. Wood waste will be mixed with various degradable materials (food waste, horse manure, waste beer) to create the compost. The compost should be fairly moist and not composed of small particles - very little dust is predicted from the operation. Some additional fugitive dust will be created from the increase in haul traffic due to the composting operation. Waste Management

submitted fugitive dust emission estimates for the operation. The dust emissions from the compost material handling is well below 1 ton/yr. The PM₁₀ dust emissions due to the haul traffic involved in the compost operation will be 6.26 ton/yr. The Division has added the compost operation dust emissions to Section II.2 – Fugitive Particulate Emissions. The Division has added a requirement to the particulate control measures (condition 2.3) which requires application of water/mulch to control fugitive dust emissions.

Other Modifications

In addition to the requested modifications, the Division has included changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this renewal.

These changes are as follows:

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It should be noted that the monitoring and compliance periods and report and certification due dates are shown as examples. The appropriate monitoring and compliance periods and report and certification due dates will be filled in after permit issuance and will be based on permit issuance date. Note that the source may request to keep the same monitoring and compliance periods and report and certification due dates as were provided in the original permit. However, it should be noted that with this option, depending on the permit issuance date, the first monitoring period and compliance period may be short (i.e. less than 6 months and less than 1 year).

- Added language specifying that the semi-annual reports and compliance certifications are due in the Division's office and that postmarks cannot be used for purposes of determining the timely receipt of such reports/certifications.

Section I - General Activities and Summary

- Revised Condition 1.1 to have a more accurate description of the emission sources.
- Conditions 13 and 17 in Condition 1.4 were renumbered to 14 and 18 and Condition 21 in Condition 1.5 was renumbered to 22. The renumbering changes were necessary due to the addition of the Common Provisions requirements in the General Conditions of the permit. In addition, General Condition 3.g (common provisions, affirmative defense) was added as a State-only requirement.

- Minor language changes were made to Condition 3.1 to more appropriately reflect the status of the source with respect to PSD.
- Based on comments made by EPA on another operating permit, the phrase “Based on the information provided by the applicant” was added to the beginning of Condition 4.1 (112(r)).
- Added a “new” Section 5 for compliance assurance monitoring (CAM).
- Minor descriptive changes to the Condition 6 Table.

Section II - Specific Permit Terms

- The requirement to calculate emissions from the landfill gas generation was changed from monthly to annually. The accepted method used to estimate these emissions does not generate valuable results with a monthly calculation. The method is designed only to accurately estimate emissions on an annual basis.
- Added language to require annual compliance with the VOC emissions via EPA’s LandGEM or AP-42 2.4. This is consistent with other recently issued Operating Permits for landfills.
- Modified the NSPS WWW, and Regulation No. 6, Part A, Subpart A, General Provisions language to be consistent with other recently issued Operating Permits for landfills (Conditions 1.3 & 1.4).
- The particulate PTE was added into the table as a limit. In the absence of any credible evidence to the contrary, compliance with the requested PM and PM₁₀ emissions shall be presumed when compliance with the waste acceptance rate (Condition 1.2) and particulate emissions control measures (Condition 2.3) is demonstrated.
- Condition 2.2 was revised to more clearly and accurately represent the Regulation No.1 fugitive dust guidelines.

Section III – Permit Shield

- The citation in the permit shield was corrected.

Section IV - General Conditions

- Added language from the Common Provisions (new condition 3). With this change the reference to “21.d” in Condition 20 (prompt deviation reporting) will be changed to “22.d”, since the general conditions are renumbered with the addition of the Common Provisions.

- Removed the upset and breakdown provisions from Condition 4 (emergency provisions) since they are included in the Common Provisions.
- The citation in General Condition 16 (open burning) was revised. The open burning requirements are no longer in Reg 1 but are in new Reg 9. In addition, changed the reference in the text from “Reg 1” to “Reg 9”.
- The definition of “prompt” has changed. Condition 21 has been updated.
- The language in 22d has been modified slightly.

Appendices

- Appendix B & C have been updated to the current version (06/01/2006). The requirement to determine if data was continuous has been removed from Appendix C.
- The table in Appendix F was cleared.